

FASTENING ARRANGEMENT FOR A SPLIT CASING

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ABSTRACT OF THE DISCLOSURE

10 A casing of a hydraulic machine such as a gas turbine is formed as a horizontally split type flangeless casing. The flangeless casing consists of an upper casing and a lower casing joined together at joint faces and fastened by fastening bolts. The fastening bolt has a screw thread which engages the threaded hole on the joint face of the lower casing. A bolt hole having an internal screw thread and through which the fastening bolt passes is provided in the upper casing. A sleeve having an external screw thread is fitted into the bolt hole of the upper casing by engaging the external screw of the sleeve with the internal sleeve of the bolt hole.

15 An enlarged diameter portion is formed on a shaft of the fastening bolt at the portion where the enlarged diameter portion abuts an upper end face of the sleeve when the fastening bolt is screwed into the threaded hole in the lower casing. When the fastening bolt is tightened, the shaft tensile force of the bolt is received by the abutment of the enlarged diameter portion and the upper end face of the sleeve and, then, transferred from the sleeve to the upper casing through the engagement of the external screw thread of the sleeve and the internal screw thread of the bolt hole of the upper casing and generates the fastening force which presses the upper casing to the lower casing.

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